

WHAT IS CLAIMED IS:

1. A method of determining a handoff timing parameter for a mobile wireless device, comprising:

measuring at least one call characteristic of the mobile wireless device;

selecting an adapted value for the handoff timing parameter based on the call characteristic; and

setting the mobile wireless device handoff timing parameter to the adapted value.

2. The method of Claim 1 wherein the call characteristic is selected from the group consisting of motion of the wireless device, location of the wireless device, signal quality, and quantity of active users.

3. The method of Claim 1 wherein selecting an adapted value includes querying a drop timer database.

4. The method of Claim 3 wherein the drop timer database includes adapted values as a function of the call characteristic.

5. The method of Claim 4 wherein the drop timer database further includes an adjustment factor corresponding to each of the adapted values.

6. The method of Claim 1 wherein the adapted value is selected from the group consisting of a nominal value and a range value, and a maximum value and a minimum value

7. The method of Claim 3 further comprising updating the drop timer database.

8. The method of Claim 7 wherein updating includes computing a revised adapted value for the call category based upon a statistical function of a previous adapted value and a present adapted value.

9. The method of Claim 8 wherein the statistical function is selected from the group consisting of a moving average, an exponential-weighted moving average, a simple mean, a median, a minimum, a maximum, the latest feedback sample, and a mean of minimum and maximum for a predetermined number of samples.

10. The method of Claim 3 wherein the drop timer database includes adapted values that represent statistical averages of a plurality of mobile wireless devices as a function of call characteristics.

11. The method of Claim 3 further comprising replicating the drop timer database in the mobile wireless device.

12. A system for determining handoff timing parameters for a mobile wireless device, comprising:

a base station in communication with the mobile wireless device and a plurality of other wireless devices, the base station including a drop timer database to store handoff timing parameters, the drop timer database including adapted values that represent statistical averages of a plurality of mobile wireless devices as a function of at least one call characteristic.

13. The system of Claim 12 wherein the call characteristic is selected from the group consisting of motion of the wireless device, location of the wireless device, signal quality, and quantity of active users.

14. The system of claim 12 wherein the drop timer database further includes adjustment factors corresponding to the adapted values.

15. The system of claim 14 wherein the adjustment factors are a function of available network resources.

16. The system of claim 14 wherein the adjustment factors are a function of the variation in the adapted pilot drop timer over a period of time.

17. The system of Claim 12 wherein each of the adapted values are selected from the group consisting of a nominal value and a range value, and a maximum value and a minimum value

18. A method of generating handoff timing parameters, comprising:

initializing a drop timer database including current pilot drop timer values being a function of a database call category;

receiving an adapted pilot drop timer value from a wireless device;

determining a call category of the wireless device;

determining a revised pilot drop timer value
corresponding to the wireless device call category; and
updating the drop timer database to reflect the revised
pilot drop timer value.

19. The method of Claim 18 wherein determining a call
category includes:

determining at least one call characteristic; and
querying the drop timer database to determine the call
category corresponding to the call characteristic.

20. The method of Claim 18 wherein determining a revised
pilot drop timer value includes computing a probability
distribution of at least two pilot drop timer values generated
by the wireless device during a predetermined time period and
corresponding to the wireless device call category.

21. The method of Claim 18 wherein determining a revised
pilot drop timer value includes computing a statistical
measure of a current pilot drop timer value in the drop timer
database corresponding to the call category and the received
adapted pilot drop timer, wherein the statistical measure is
selected from the group consisting of a moving average, an
exponential-weighted moving average, a simple mean, a median,

a minimum, a maximum, the latest feedback sample, and a mean of minimum and maximum for a predetermined number of samples.

22. The method of Claim 18 further comprising updating the mobile wireless device pilot drop timer value based on the current pilot drop timer value in the drop timer database corresponding to the call category of the mobile wireless device.

23. The method of Claim 18 wherein the drop timer database further includes current adjustment factors corresponding to the current pilot drop timer values.

24. The method of Claim 18 wherein the adapted pilot drop timer value is selected from the group consisting of a nominal value and a range value, and a maximum value and a minimum value

25. The method of Claim 23 further comprising:
determining a revised adjustment factor corresponding to the wireless device call category; and
updating the drop timer database to reflect the revised adjustment factor.

26. The method of Claim 24 updating the mobile wireless device adjustment factor based on the current adjustment factor in the drop timer database corresponding to the call category of the mobile wireless device.

27. The method of Claim 18 further comprising sending the revised pilot drop timer value to the wireless device.

28. The method of Claim 27 wherein sending includes sending the revised pilot drop timer value to other wireless devices in the wireless device call category.

29. The method of claim 27 wherein the revised pilot drop timer value includes a nominal value and a range value.

30. The method of Claim 27 wherein the revised pilot drop timer value includes a maximum value and a minimum value.

31. A method of generating handoff timing parameters, comprising:

initializing a drop timer database including current pilot drop timer values being a function of a database call category;

receiving an adapted pilot drop timer value from a wireless device;

determining a call category of the wireless device;

determining a revised pilot drop timer value corresponding to the wireless device call category;

updating the drop timer database to reflect the revised pilot drop timer value;

determining an identifier corresponding to the revised pilot drop timer value; and

communicating the identifier to the wireless device.

32. The method of Claim 31 wherein the adapted pilot drop timer value is selected from the group consisting of a nominal value and a range value, and a maximum value and a minimum value

33. The method of Claim 31 wherein determining the identifier includes;

querying a standard table to determine a standard pilot drop timer value being closest in value to the revised pilot drop timer value; and

selecting the identifier corresponding to the standard pilot drop timer value.

34. The method of Claim 33 wherein determining a call category includes:

determining at least one call characteristic; and
querying the drop timer database to determine the call category corresponding to the call characteristic.

35. The method of Claim 33 further comprising communicating the standard table to the wireless device.

36. The method of Claim 33 wherein determining a revised pilot drop timer value includes computing a probability distribution of at least two pilot drop timer values generated by the wireless device during a predetermined time period and corresponding to the wireless device call category.

37. The method of Claim 33 wherein determining a revised pilot drop timer value includes computing a statistical measure of a current pilot drop timer value in the drop timer database corresponding to the call category and the received adapted pilot drop timer, wherein the statistical measure is selected from the group consisting of a moving average, an exponential-weighted moving average, a simple mean, a median, a minimum, a maximum, the latest feedback sample, and a mean of minimum and maximum for a predetermined number of samples.

38. The method of Claim 31 wherein determining the identifier includes;

querying a modifiable table to determine a modified pilot drop timer value being closest in value to the revised pilot drop timer value; and

selecting the identifier corresponding to the modified pilot drop timer value.

39. The method of Claim 38 further comprising communicating the modifiable table to the wireless device.

40. The method of Claim 38 wherein determining a revised pilot drop timer value includes computing a probability distribution of at least two pilot drop timer values generated by the wireless device during a predetermined time period and corresponding to the wireless device call category.

41. The method of Claim 38 wherein determining a revised pilot drop timer value includes computing a statistical measure of a current pilot drop timer value in the drop timer database corresponding to the call category and the received adapted pilot drop timer, wherein the statistical measure is selected from the group consisting of a moving average, an

exponential-weighted moving average, a simple mean, a median, a minimum, a maximum, the latest feedback sample, and a mean of minimum and maximum for a predetermined number of samples.

42. A system for determining handoff timing parameters for a mobile wireless device, comprising:

a base station in communication with the mobile wireless device, the base station including a drop timer database to store handoff timing parameters, the drop timer database including adapted values as a function of at least one call category.

43. The system of Claim 42 wherein each of the adapted values is selected from the group consisting of a nominal value and a range value, and a maximum value and a minimum value

44. The system of Claim 42 wherein the call category is selected from the group consisting of motion of the wireless device, location of the wireless device, signal quality, and quantity of active users.

45. The system of claim 42 wherein the drop timer database further includes adjustment factors corresponding to the adapted values.

46. The system of claim 45 wherein the adjustment factors are a function of available network resources.

47. The system of claim 45 wherein the adjustment factors are a function of the variation in the adapted pilot drop timer over a period of time.